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EXAMINER

WEEKS, GLORIA R

ART UNIT

PAPER NUMBER

3721

DATE MAILED: 06/19/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/720,446

Applicant(s)

AHM, POUL HENRIK

Examiner

Gloria R Weeks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Response to Amendment

1. This action is a supplemental action in response to applicants' amendment received on April 16, 2003.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites the limitation "the lowering belts" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 13, 15, 18 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahm (USPN 5,101,594) in view of O'Connor (USPN 6,176,068).

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In reference to claim 13, Ahm discloses a germinating tape (1) which is zigzag folded and packaged (column 2, lines 5-10), but does not disclose whether or not the bendings of the tape are flush with the edges, nor does Ahm disclose the type of container in which the tape is packaged. O'Connor teaches a tape (11) that is zigzag folded (column 6, lines 32-37) into at least one oblong stack (figure 4) in such a manner that some of the bendings of the tape flush with the ends of the stack whereas the remaining bendings are positioned at varying distances therefrom (column 8, lines 1-8). Based on O'Connor's disclosure that any continuous strip of material can be packages in this manner, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the packaging of the germinating tape used in Ahm to the zigzag folding of O'Connor wherein the ends of the bendings are positioned in a non-flush formation for the purpose of preventing build-up on the ends of the stack (O'Connor-column 8, line 1-8).

With respect to claim 15, Ahm discloses a germinating tape (1) containing seeds (10) which is formed into a supply roll (20) or is zigzag folded to be packaged (column 2, lines 5-10), but does not disclose the type of container in which the tape (1, 20) is packaged. O'Connor teaches a packed, flexible, folded tape (11; column 5, lines 63-67), characterized in that the tape (11) is advanced continuously from a tape supply (51) to a packing location (figure 1) where the tape (11) is zigzag folded by virtue of its weight and by side lowering means (column 14, lines 39-46) into at least one oblong stack on the bottom (41) of the package (40) formed as a bag or a box (column 15, lines 9-17) in such a manner that some of the bendings of the tape flush with the ends of the stack whereas the remaining bendings are positioned at varying distances therefrom (column 8, lines 1-8), and after the filling of the package (40) the layers of the stack are

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compressed and the package closed (column 6, lines 61-65). Based on O'Connor's disclosure that any continuous strip of material can be packages in this manner, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the packaging of the germinating tape used in Ahm to the zigzag folding of O'Connor wherein the ends of the bendings are positioned in a non-flush formation for the purpose of preventing build-up on the ends of the stack (O'Connor-column 8, line 1-8). It would have also been obvious to one having ordinary skill in the art to modify the method of packaging of Ahm to use the packaging material of O'Connor for the purpose of allowing the germinating tape to be sealed for shipping.

With respect to claim 18 and its limitations as stated above, Ahm in view of O'Connor discloses a method where the tape is of a width corresponding to maximum 90% of the distance between the walls of the package (O'Connor-figures 2-3).

Regarding claim 20 and its limitations as stated above, the modified method of Ahm in view of O'Connor '068 discloses a method characterized that the bag (O'Connor - 40) used is made of shrink-film (O'Connor -column 6, lines 56-65), and that the package is subjected to a shrinking after its closing.

With respect to claim 21 and its limitations as stated above, Ahm in view of O'Connor discloses a method characterized in that the packing is carried out under vacuum (O'Connor-column 6, lines 56-65).

6. Claim 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahm (USPN 5,101,594) in view of O'Connor (USPN 6,176,068) as applied to claim 13 above, and further in view of O'Connor (USPN 6,035,608).

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Regarding claim 14 and its limitations as stated above, the modified package of Ahm in view of O'Connor '068 discloses packed germinating tape (Ahm-1) comprising several stacks (O'Connor-figures 2-4) arranged in parallel, and that the package is selected from the group consisting of a plastic sheet and a cardboard box (O'Connor-column 6, lines 56-58; column 15, lines 9-17), but does not disclose separating sheets between the stacks. O'Connor '608 teaches a packed tape (12) comprising several stacks (20-23) arranged in parallel (figures 5-6), and that the package (40) is a box, and that separating sheets (62) are optionally inserted between the stacks (column 6, lines 55-65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the packaging of Ahm in view of O'Connor '068 to include the separating sheets of O'Connor '608 for the purpose of dividing each stack and providing support for each formed stack (O'Connor '608-column 6, lines 60-65).

In reference to claim 19 and its limitations as stated above, the modified method of Ahm in view of O'Connor '068 discloses a method characterized in that the zigzag folding and the compressing of the tape (Ahm-1; O'Connor '068- 11) to be packed is carried out in a compartment (O'Connor '068- 40) defined by the lowering means (O'Connor '068- 227) and some guides (O'Connor '068- 63, 64), such as plates or bars, and towards the bottom of a package (O'Connor '068- 40), such as a bag, placed on a displaceable support (O'Connor '068- 225), but does not disclose the support as optionally stepwise, laterally displaceable. O'Connor '608 teaches a method of zigzag folding and packaging of a tape (11) in a compartment defined by a lowering means (56) and some guides (column 3, lines 36-38), and towards the bottom of a package (41) placed on a stepwise, laterally displaceable support (60) whereby after the compressing of the tape the package can be rolled up and closed about the stack at the same time

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as the compartment is removed (column 7, lines 35-54). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the method of Ahm in view of O'Connor '068 to include the displaceable support of O'Connor '608 for the purpose of aiding in the stacking of the tape (column 7, lines 12-16).

7. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahm (USPN 5,101,594) in view of O'Connor (USPN 6,176,068) as applied to claim 15, and further in view of Ellis (USPN 5,516,256).

In reference to claim 16 and its limitations as stated above, the modified method of Ahm in view of O'Connor discloses a side lowering means (O'Connor- 227; column 14, lines 39-46), but does not disclose the side lowering means as endless, circulating belts. Ellis teaches a method of zigzag folding an endless strip of material or tape including side lowering means formed by substantially vertical, endless, circulating lowering belts (38, 60) opposing one another and being arranged at the ends of the stack whereby the zigzagged tape forms bendings (72) as the downward courses are tangent to the outermost tape bendings (figure 10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of lowering the tape as disclosed by Ahm in view of O'Connor, to that of Ellis for the purpose of driving or feeding the paper in a desired direction.

Regarding claim 17 and its limitations as stated above, the modified method of Ahm in view of O'Connor discloses a method characterized in that the zigzag folding of the tape (Ahm-1; O'Connor-11) is carried out by means of at least one tape lowering means (O'Connor-62, 63, 227) comprising two co-acting means (O'Connor-62, 63) above the packaging location (O'Connor-figure 5) whereby the zigzag folding is controlled by alternating movement of the co-

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acting means and the tape laying speed. Ellis teaches a method of packaging a tape comprising wherein the tape-lowering means includes two co-acting endless circulating belts (38, 60) passing the tape downwards therebetween, and whereby the zigzag folding is controlled by the oscillating movement of the tape lowering means (Ellis-38, 60) in combination with the tape laying speed. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of lowering the tape as disclosed by Ahm in view of O'Connor, to that of Ellis for the purpose of driving or feeding the paper in a desired direction.

8. Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahm (USPN 5,101,594) in view of O'Connor (USPN 6,176,068) as applied to claim 15, and further in view Yamada (USPN 4,427,404) and Ellis (USPN 5,516,256).

In reference to claim 22 and its limitations as stated above, Ahm in view of O'Connor discloses an assembly used in carrying out the method as claimed above, characterized in that it comprises an upwardly and downwardly open compartment (O'Connor- figure 11; 118, 119), a stepwise, laterally displaceable support means (60) that is adjustable in height, and lowering means (O'Connor-62, 63). Yamada teaches a method of folding and packaging a tape (T) including the use of an upwardly and downwardly open compartment (area within edges of frame 2), the opposing ends of which are provided with side lowering means (52, 53) which face the interior of the compartment, and move downward (pivoting motion), the assembly further comprising a frame (4) surrounding the compartment and retaining and optionally distending a package (9, 9'), a supporting means (1) being accommodated below the compartment and the frame. It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the method of Ahm in view of O'Connor to include the

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use the frame structure of Yamada for the purpose of supporting a package to allow the tape to be folded and packaged simultaneously.

Neither Ahm, O'Connor nor Yamada disclose the use of endless conveying belts as side lowering means during a process of folding and packaging tape. Ellis teaches a method of zigzag folding an endless strip of material or tape including side lowering means formed by substantially vertical, endless, circulating lowering belts (38, 60) opposing one another and being arranged at the ends of the stack whereby the zigzagged tape forms bendings (72) as the downward courses are tangent to the outermost tape bendings (figure 10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the method of lowering the tape as disclosed by Ahm in view of O'Connor and Yamada, to that of Ellis for the purpose of driving or feeding the paper in a desired direction.

With respect to claim 24 and its limitations as stated above, Ahm in view of O'Connor, Yamada and Ellis discloses an assembly wherein the bag (O'Connor-40) is made of shrink film, characterized in that it comprises a compressing means (O'Connor-column 5, lines 51-60; Yamada-6, 8) for the stack and a film shrinking equipment (O'Connor-40a).

9. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ahm (USPN 5,101,594) in view of O'Connor (USPN 6,176,068) as applied to claim 15, and further in view O'Connor (USPN 6,035,608) and Ellis (USPN 5,516,256).

Regarding claim 23 and its limitations as stated above, Ahm in view of O'Connor discloses an assembly used in carrying out the method as claimed above, characterized in that it comprises at least one tape lowering means (O'Connor '068 -52, 53), which is level adjustable (adjustable by regulating the distance the rod expands from the cylinder) and a stepwise, laterally

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displaceable support (O'Connor '068 -60) which allows for the adjustment of the height of the support (O'Connor '068 -column 8, lines 28-32). O'Connor '608 teaches a method of zigzag folding and packaging of a tape using a side lowering means (56) which is pivotally arranged about a point (figure 4) arranged at the upper end of the tape lowering means and controlled by an actuator (57). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the method of lowering tape taught by Ahm in view of O'Connor '068, to the pivotable lowering means of O'Connor '608 for the purpose of guiding the tape in a reciprocating motion. It is well known in the art that the use of an actuator encompasses electrical components i.e. computer and/or sensor, therefore, it would have also been obvious to further modify the method of Ahm in view of O'Connor '068 to use the electrical control means of O'Connor '608 for the purpose of having a more effective means for controlling the reciprocating motion of the lowering means.

Ellis teaches a method of zigzag folding an endless strip of material or tape including side lowering means formed by substantially vertical, endless, circulating lowering belts (38, 60). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the method of lowering the tape as disclosed by Ahm in view of O'Connor and Yamada, to that of Ellis for the purpose of driving or feeding the paper in a desired direction.

Conclusion

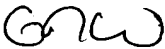
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to attachment for notice of references cited and recommended for consideration based on their disclosure of limitations of the claimed invention.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gloria R Weeks whose telephone number is (703) 605-4211. The examiner can normally be reached on 9:30 am - 8:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I Rada can be reached on (703) 305-2187. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7769 for regular communications and (703) 308-7769 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-1789.


grw
June 4, 2003

Gloria R Weeks
Examiner
Art Unit 3721



Rinaldi I. Rada
Supervisory Patent Examiner
Group 3700